

ASX and Media Release: 1 July 2020 ASX code: RXM



T 1300 822 161 (Australia) T +61 3 9068 3077 (International) P PO Box 3435 Rundle Mall South Australia 5000 E rex@rexminerals.com.au W www.rexminerals.com.au

New large-scale Gold Trend emerging at Hog Ranch

Ongoing field work and research by Rex Minerals Ltd (Rex or the Company) at the Hog Ranch Property (Hog Ranch) in Nevada USA, has shown potential for gold mineralisation on a much larger scale than originally anticipated.

Key findings and actions

- Geological features that are common to the style of gold mineralisation found at Hog Ranch are interpreted to extend over an area that is more than five times the size of the combined historically mined area (0.3Mozs) and current Mineral Resource area (1.4Mozs – see ASX announcement dated 12 May 2020).
- Rex interprets these features to be related to a series of repeating structures which exist along a broad gold trend which appear to be controlling the gold deposition at Hog Ranch.
- Within this gold trend, Rex is exploring for two economically significant target types:
 - **Shallow, large-scale** gold mineralisation amenable to low-cost (open cut) mining and heap leach processing, and
 - High grade vein hosted gold mineralisation, underneath the shallow gold positions, as evidenced by many high-grade historical drill intercepts including drill hole 95-031 with 6.1m @ 61.8g/t gold (~3m true width) and drill hole 89-042 with 9.1m @ 19.7g/t gold (~3m true width).
- Rex has followed up this work by more than doubling its land position at Hog Ranch.
- Rex is now mobilising to **commence drilling in Q3 2020** with a focus on both the shallow disseminated gold and the underlying high-grade gold targets.

Rex's Managing Director, Richard Laufmann, said: "Our outlook and options for Hog Ranch have evolved and grown substantially. It all started with the initial review of a small-scale start-up project at Bells, and now we see a much larger suite of targets following a very large trend.

"Beyond the shallow heap leach gold potential at Hog Ranch, there are quite a number of tasty historical high-grade gold hits that are screaming out to be followed up. If the scale of shallow gold at Hog Ranch is anything to go by, the potential for high-grade vein-hosted gold at depth could deliver equally, if not more exciting, prospects for Rex."



Evidence for regional gold potential at Hog Ranch

The geological features that are linked to the historical mining area and the current Mineral Resource at Hog Ranch are found to exist over a broad area beyond the current limits of the Mineral Resource. These features support the interpretation that there are multiple epithermal deposit types which could host significant gold mineralisation and which appear to occur along a defined corridor or trend (Figure 1).

The information that has led Rex to this interpretation is the combined presence of geological alteration features such as hydrothermal silica with surrounding clay minerals or alteration features in the surface rocks, overlapping geochemical anomalies and the coincidence of favourably-oriented fault intersection points.

The above features are observed in greatest intensity along a broad corridor or trend which cuts through the dominant volcanic host rocks at Hog Ranch. At this stage, Rex has limited the scope of its regional exploration work to the local host rocks which are part of a large volcanic caldera known as the Cottonwood Creek Volcanic Center (CCVC) (Figure 1).

As part of the gold mineralisation at Hog Ranch, there exists two distinct target types which are common for this type of deposit in Nevada. The target types are vastly different from each other in terms of their location, size, grade and subsequent mining and processing options.

Large-scale, shallow disseminated gold target type

The historical mining area at Hog Ranch and current Mineral Resource along with a larger series of well-supported exploration targets near the surface (less than 200m deep) are all based on flat-lying disseminated gold mineralisation (Figure 3).

Where this gold mineralisation has been weathered, the gold particles within the permeable host rocks are easily recovered using heap leach processing methods (used in historical mining at Hog Ranch) as is common practice throughout Nevada. In addition, the near-to-surface and flat-lying nature of the gold mineralisation at Hog Ranch means that open pit mining with low strip ratios can be employed.

A combination of higher gold prices, larger economies of scale and very low operating costs has enabled Rex to consider the definition and economic evaluation of a much larger volume of gold mineralisation than was possible during the historical mining period when the gold price was averaging circa US\$330/oz.

The recently completed Bells Scoping Study has highlighted that even as a small-scale gold operation, the economics of mining shallow disseminated gold mineralisation at Hog Ranch appear very attractive (see ASX announcement dated 9 June 2020).



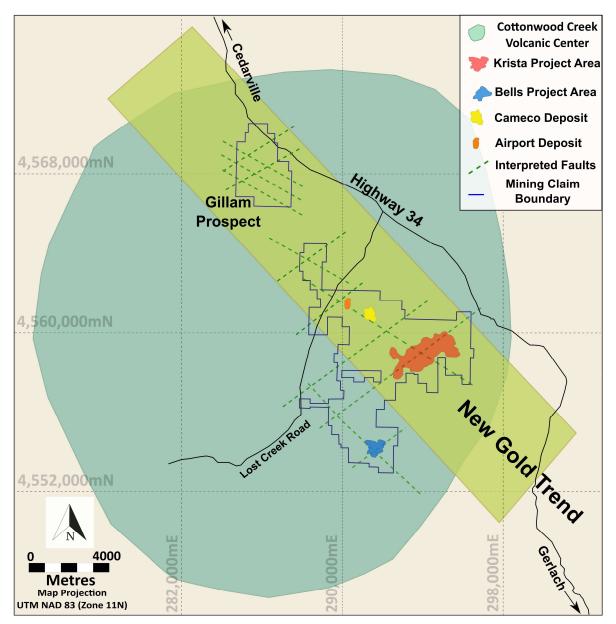


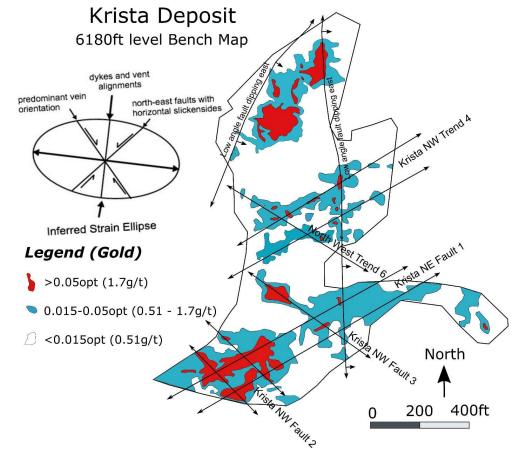
Figure 1: View of the Rex Minerals claim boundaries at Hog Ranch relative to the volcanic host rocks (CCVC), with the newly-defined gold trend which cuts through the host rocks at Hog Ranch and is interpreted to be the focus of significant gold mineralisation.

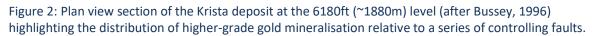
Exploration targets in the Krista Project area

In recognition of the larger-scale potential at Hog Ranch, Rex has conducted a detailed review of the structures that host the earlier mined area and current Mineral Resource area at the Krista Project. Information from this research has highlighted the importance of the gold mineralisation relative to key fault intersections, with the higher-grade sections of the gold mineralisation spreading into lower grades away from these intersection points (Figure 2).



It was commonly observed that the high-grade sections of the shallow gold (>0.5g/t gold) extend for approximately 50m to 100m away from a defined structural intersection point (or series of structures), beyond which, lower-grade gold mineralisation (typically 0.2 to 0.5g/t gold) would be dispersed further away for up to hundreds of metres and/or potentially linking up with another structural intersection point to form a very large continuous blanket of gold mineralisation.





A second important controlling feature in the Krista area is that the upper and lower contact of a particular rock unit called the Krista Tuff provides a focus for the gold-bearing fluids to disperse parallel to these contact positions. This contact position is largely flat-lying or shallowly-dipping to the north-west in the Krista Project area.

There are other smaller positions which host gold mineralisation at Hog Ranch. However, the larger and more continuous gold mineralisation from both the historical mining area and for the current Mineral Resource relate specifically to where the Krista Tuff rock unit hosts an intersection point between two major structures.

In the Krista area, it has been identified that the combined historical mining area and current Mineral Resource contains just under 0.8Mozs gold over a total of nine defined structure intersection points within the Krista Tuff rock unit.



This geological understanding at Krista subsequently led Rex to complete a larger geological interpretation to identify extensions to the known structures which extend into the favourable Krista Tuff at shallow levels. The results from this work were limited to just the immediate area surrounding the Krista Project area (~6km²), where the geology could be more confidently extrapolated from the historical mining information and current drill hole database.

The results from the updated geological interpretation have identified 30 structural intersection points which relate to gold-bearing structures (or have some evidence of gold mineralisation) which pass through the Krista Tuff and which remain untested.

Regional targets along the defined Gold Trend

Further outside of the Krista Project area, it was also recognised that there are additional locations throughout the host volcanic rocks at Hog Ranch which have similar features to what is observed at both the Krista and Bells Projects.

Earlier surface mapping information highlighted the presence of strong alteration and interpreted hydrothermal silica, which are typical of shallow epithermal deposits. These locations were investigated in the field and confirmed by Rex and also found to be associated high levels of anomalism in various metal combinations that are indicative of the near-to-surface position of an epithermal gold deposit.

The potential epithermal deposit locations were also observed to exist along a definable trend which cuts through the regional volcanic rocks of the CCVC (Figure 1). Rex interprets this broad trend to relate to a deep-seated structure that has controlled the location of these historical hot-spring locations and their associated gold mineralisation.

The area defined by Rex which has evidence for epithermal mineralisation now exceeds 10km². This compares with the area at Krista, within the Krista Tuff only, which was historically mined or within the current Mineral Resource for an area of approximately 1.6km².

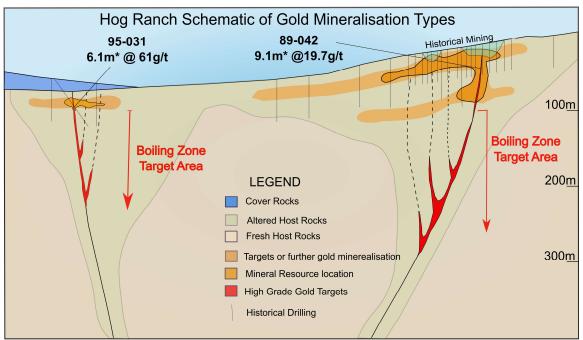
For reference also, the Bells Project area, which appears to have formed outside of the larger defined gold trend, has recorded mine production and a current Mineral Resource of just over 0.45Mozs of gold covering an area of just under 0.8km².

High-grade vein-hosted gold target types

In addition to the large-scale shallow gold potential at Hog Ranch, there exists evidence for the presence of high-grade lode gold (or vein-hosted gold) mineralisation. There are already a large number of very high grade (>30g/t) intercepts (see Table 1) that exist throughout the drill hole database which are interpreted by Rex to be related to vertically-orientated structures which were essentially part of the 'plumbing system' to deliver the gold-bearing fluids close to the surface.

Figure 3 is a schematic representation of the relationship between the shallow disseminated gold and the vertical vein-hosted high-grade gold target types at Hog Ranch. The high-grade gold mineralisation is interpreted to be most prominent in a favourable position known as the "boiling zone." Rex interprets that the structures in the "boiling zone" have not yet been effectively tested at Hog Ranch.





*All reported intersections are down hole lengths only and not true widths (see announcement dated 2 September 2019 for historical drill hole information at Hog Ranch).

Figure 3: Schematic diagram representing the two target types at Hog Ranch including the interpreted position of some high-grade historical drill intercepts (Drill Hole 95-031 and Drill Hole 89-042) relative to this geological model.

A number of these high-grade veins were exposed in the historical open pits (Figure 4) with a similar style of vein system still currently exposed at the Bells open pit. Rex has reviewed a number of these high-grade intersections and found that they remain to be tested along the dominant vein orientation which was documented from the historical mining area to be in a north-west direction.

Table 1 shows a list of high-grade historical drill intersections which are interpreted by Rex to relate to vertically-oriented structures which potentially exist above a favourable position or "boiling zone" where more significant high-grade vein-hosted gold is interpreted to exist at Hog Ranch.

The presence of high-grade vein-hosted gold mineralisation underneath a large blanket of shallow disseminated gold is a common occurrence throughout the south-west USA. The Sleeper and Midas deposits in Nevada are two analogies for this target type which are interpreted to have formed as part of the same geological event as Hog Ranch (Saunders 2008).



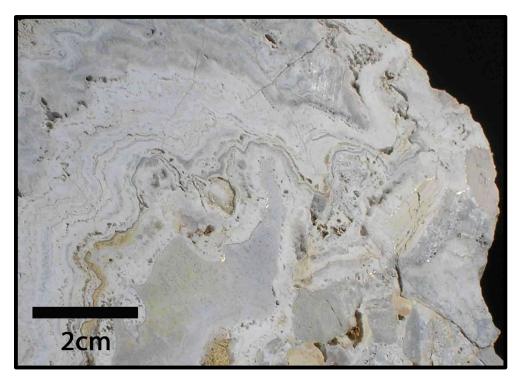


Figure 4: Crustiform textured quartz-adularia vein with significant fine-grained visible gold from the historical 139 Pit, which is in the Krista Project area.

Table 1: Significant drilling results* from the Hog Ranch drill hole database for all intersections that are interpreted to exist in quartz vein-hosted vertical structures and which also exist outside of the historical open pits.

Hole Number	Pit/Area	From (ft)	To (ft)	Interval (m)	Gold (g/t)
95-031	Cameco	165	185	6.1	61.8
89-042	Geib/(Krista)	165	195	9.1	19.7
88-199	139/(Krista)	300	305	1.5	194.1
87-120	Geib/(Krista)	205	215	3.0	59.5
87-238	Geib/(Krista)	200	205	1.5	92.9
89-044	Geib/(Krista)	240	245	1.5	72.8
88-025	Geib/(Krista)	270	275	1.5	64.9
87-126	Geib/(Krista)	250	255	1.5	50.0
91-375	139/(Krista)	240	245	1.5	44.4
87-215	Geib/(Krista)	145	150	1.5	38.7
86-155	Geib/(Krista)	260	265	1.5	35.2
19-007	Bells	255	275	6.1	4.6

*All reported intersections are down hole lengths only and not true widths. The drill intersections are largely interpreted to be from near-vertical quartz veins which implies that the true width may be much less than the reported down hole lengths (see ASX announcement dated 2 September 2019 for details and JORC tables pertaining to the historical drill hole information at Hog Ranch).



Next steps

Rex is in the final stages of planning the Nevada summer drilling program which is aimed at testing a number of shallow disseminated gold and deeper high-grade gold targets. This drilling program, which will be completed over the 3rd quarter of this year, will provide important evidence to support the current interpretations for both target types.

For more information about the Company and its projects, please visit our website <u>https://www.rexminerals.com.au/</u> or contact:

Richard Laufmann, Chief Executive Officer

- or Kay Donehue, Company Secretary
- T 1300 822 161 (Australia)
- T +61 3 9068 3077 (International)
- E 'rex@rexminerals.com.au'

Media and Investor Relations: Gavan Collery

- **T** +61 419 372 210
- T 1300 822 161 (Australia)
- **E** 'gcollery@rexminerals.com.au'

COMPETENT PERSONS STATEMENT

The information in this announcement for the Hog Ranch Property that relates to Exploration Results, Exploration Targets or Mineral Resources is based on, and fairly reflects, information compiled by Mr Steven Olsen who is a Member of the Australasian Institute of Mining and Metallurgy and an employee of Rex Minerals Ltd. Mr Olsen is also a shareholder of Rex Minerals Ltd. Mr Olsen has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Olsen consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Forward-Looking Statements

This announcement contains "forward-looking statements". All statements other than those of historical facts included in this announcement are forward-looking statements. Where the Company expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and believed to have a reasonable basis. However, forward-looking statements are subject to risks, uncertainties and other factors, which could cause actual results to differ materially from future results expressed, projected or implied by such forward-looking statements. Such risks include, but are not limited to, copper, gold and other metals price volatility, currency fluctuations, increased production costs and variances in ore grade or recovery rates from those assumed in mining plans, as well as political and operational risks and governmental regulation and judicial outcomes. The Company does not undertake any obligation to release publicly any revisions to any "forward-looking statement"



References

Bussey, S.D., Taufen, P. M., Suchomel, B. J. and Ward, M. 1993. Soil and stream sediment geochemical dispersion over the Bells deposit, Hog Ranch Mine, Washoe County, Nevada: F.W. Dickson and L.C. Hsu (eds) Geochemical Exploration 1991, J. Geochem Explor., v 47, pp 217-234.

Bussey, S. D., 1996. Gold mineralisation and associated rhyolitic volcanism at the Hog Ranch District, northwest Nevada: Geology and Ore Deposits of the American Cordillera: Geological Society of Nevada Symposium Proceedings, 1996, pp 181-207.

Corbett, G. 2002, Epithermal Gold for Explorationists: AIG Journal, Applied Geoscientific practice and research in Australia. Paper 2002-1, April.

Hedenquist, J. W., Arribas R., A., and Gonzalez-Urien, E., 2000, Exploration for Epithermal Gold Deposits: Reviews in Economic Geology, v. 13, pp 245-277.

John, D. A., 2001, Miocene and Early Pliocene Epithermal Gold-Silver Deposits in the Northern Great Basin, Western United States: Characteristics, Distribution, and Relationship to Magmatism: Economic Geology, v. 96, pp 1827-1853.

Ponce, D. A., and Glen, J. M. G., 2002, Relationship of epithermal gold deposits to large-scale fractures in Northern Nevada: Economic Geology, v. 97, pp. 3-9.

Saunders, J. A., Unger, D. L., Kamenov, G. D., Fayek, M., Hames, W. E., Utterback, W. C., 2008, Genesis of Middle Miocene Yellowstone hotspot-related bonanza epithermal Au-Ag deposits, Northern Great Basin, USA: Minerallium Deposita, DOI 10.1007/s00126-008-0201-7

Sillitoe, R. H. 1993, Epithermal Models: Genetic types, Geometric controls and Shallow Features: GAC Special Paper 40, Mineral Deposit Modeling. pp 403-417.

Smith, R. L., 1960. Zones and Zonal Variations in Welded Ash Flows: Geological Survey Professional Paper 354 – F. United States Department of the Interior, Geological Survey. pp. 149-159.

White, N. C. and Hedenquist, J. W., 1995, Epithermal Gold Deposits, Styles, Characteristics and Exploration: Published in SEG Newsletter, 1995, No. 23, pp. 1, 9-13